

JOB DESCRIPTION
MURFREESBORO WATER AND SEWER DEPARTMENT
GIS APPLICATIONS SPECIALIST

1. JOB TITLE: GIS APPLICATIONS SPECIALIST

- 2. DEFINITION:** This is a technical position involving the production of highly skilled work in the operation and maintenance of the Department GIS system. The position reports directly to the GIS Coordinator. All employees are responsible to the Director and to the City Manager. This position is classified as Non-Exempt for purposes of the Fair Labor Standards Act, as having no significant occupational exposure to bloodborne pathogens, and as Non-Safety Sensitive; the employee will be subject to post accident, reasonable suspicion, return to duty and follow-up drug and alcohol testing.

3. EQUIPMENT / JOB LOCATION:

- a. This position requires the use of drafting instruments, Intel-based workstations, personal computers, multiple GIS software packages, large format scanners, blue print machines, calculators, vehicles, global positioning systems, tape measures and standard office machines.
- b. The primary location for this job is the Murfreesboro Water & Sewer Department Engineering Section. Periodic fieldwork will be required, and occasionally the employee will be exposed to dust, inclement weather, biological, physical and traffic hazards associated with water and sewer line mapping and construction. All City facilities and vehicles are smoke-free locations.

4. ESSENTIAL FUNCTIONS OF THE JOB:

- a. Development and maintenance of MWSD GIS layers.
- b. Updates and maintains various MWSD GIS mapping systems using ESRI, Microstation and other computer related software.
- c. Enters database information and annotation and other GIS data from sources including as-built drawings, recorded plats, aerial photographs, GPS data collection, engineering plans, and other historic or archived maps.
- d. Researches information needed from various sources (surveys, aerial photographs, Property Appraiser data, plats, Department of Transportation maps, County maps, record drawings, as-builts, etc.).
- e. Interprets field notes, sketches, instructions from surveyors, construction crews, engineers, Operations and Maintenance, etc.
- f. Translates information into clear, accurate drawings.
- g. Assists with the preparation, reproduction and distribution of drawings, maps, graphics, displays and other related documents.
- h. Performs related work on office computers including GIS database entry.

- i. Responsible for establishing, maintaining, storing and filing drawings and maps in an orderly, systematic filing and data base mapping systems.
- j. Performs data entry of mapping, modeling, and information on GIS system.
- k. Verifies correctness of data entered and makes corrections as needed/instructed.
- l. Coordinates with other county agencies to exchange utility location information for coordination purposes and increase GIS system information integrity.
- m. Coordinates with the Engineering staff to provide water, wastewater, re-use, and storm-water system information to others.
- n. Maintain website pages and supporting databases.
- o. Design and implement web-based capabilities supporting organizational activities.
- p. Files drawings, aerial maps, and related GIS documentation.
- q. Develops standard operating procedures for all activities described herein above.
- r. Knowledge and skillful usage of the terminology, concepts, principles, and practices of geographical information systems (GIS), ArcInfo, ArcView, AutoCAD, water, wastewater, and data management.
- s. Performs customized map services as required.
- t. Performs customer service and assists the public and MWSD staff with inquiries and the reproduction of GIS maps and other related documents.
- u. Creates ArcGIS Layers, GIS associated databases, and computer aided drawings.
- v. Transports and operates global positioning system equipment in the field.
- w. Sits, stands, lifts, stoops and walks intermittently, often over rough terrain.
- x. Attends public meetings as required, some of which may be scheduled after normal working hours.

5. ADDITIONAL EXAMPLES OF WORK TO BE PERFORMED:

Performs other duties and special projects as assigned.

5. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

- a. Must be at least 21 years of age.
- b. Must be either a college graduate in Engineering, Geoscience, Computer Science, Remote Sensing, Geology, or related field with two to five years of experience in municipal water distribution and wastewater collection systems, or a technical school graduate with a minimum of five years related experience.
- c. Must have legal authorization to work in the United States.
- d. Must have a driver's license valid in the State of Tennessee.
- e. Must be able to comprehend both oral and written instructions and to communicate in English, both orally and in writing.
- f. Knowledge of Intel-based hardware and software applications, with an understanding of or the ability to learn the operating system.
- g. Ability to perform job responsibilities in a timely manner in order to meet scheduled deadlines.
- h. Have an aptitude for computers, as demonstrated through experience in GIS

applications and project implementation involving database design and implementation.

- i. Ability to create web pages using Macromedia Dreamweaver with HTML and Javascript.
- j. Must be able to carry and operate global positioning equipment.
- k. Must demonstrate good temperament, judgment and human relation skills and be able to communicate effectively with developers, contractors, engineers, surveyors and others of the public, some of whom at times may be irate and unreasonable.
- l. Knowledge of accepted standards and practices of water distribution and storm-water / wastewater collection systems.
- m. Ability to work independently and to formulate work procedures within the limits of the position to accomplish assigned task.
- n. Ability to train other workers.
- o. Must be neat and orderly and complete tasks in the allotted time.
- p. Knowledge of or ability to learn Occupational Safety Hazards and appropriate safety precautions and procedures.
- q. Ability to report to work on time and perform the duties of the job for an entire workday. Occasional overtime may be required under either emergency conditions or to attend meetings as required by the department.
- r. Ability to operate a standard pickup truck.
- s. Ability to operate keyboards, transits, and global positioning satellite equipment.
- t. Ability to draw and to use computer assisted drawing devices.
- u. Ability to use standard office equipment.
- v. Ability to walk over rough terrain. This activity may be required for the full work day.
- w. Must be to lift and carry equipment weighing approximately fifteen pounds throughout workday.

Non Exempt
Non-Safety Sensitive
July 1, 2005